



ESO: CAD

Interface Overview/Technical
Requirements

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Overview

The ESO CAD Interface is designed to bring CAD data into ESO's system for use by the end user as they document their incidents. The method in which this is accomplished is dependent on the CAD system being used and the preference of the CAD system host and agency requesting the interface. It is important to note that there is development required on the part of the CAD vendor as well as ESO Solutions; please check with your CAD vendor for any costs associated with this interface. If you have an existing interface with your previous software vendor, it is possible to continue to use this interface, whether file export or database view.

ESO CAD Monitor

The ESO CAD Monitor is a small application that runs as a Windows service. It is designed to collect the required data elements, convert them to a usable format and then send the data to the ESO Web Service where it is available for use within the ESO application by the end user. ESO CAD Monitor requires Microsoft .NET Framework 4.5.2.

The ESO CAD Monitor can be configured for several types of interfaces depending on the preference of the CAD system host, CAD vendor.

File Read – The CAD vendor must have a mechanism in place to deliver an export file based on unit status change to a designated directory. The ESO CAD Monitor is configured to read that directory and the files in it and then remove them once processed. A file backup location can also be designated, if desired.

SQL Database View - ESO's CAD Monitor will be configured to read from a real-time backup of the CAD database or from the live database depending on the preference of the CAD host. A view of the database will be created to supply the ESO CAD Monitor with the needed data fields in the format desired while not affecting the CAD production database or backup.

Spillman and EFORCE Interfaces

Both Spillman and EFORCE use a Web Service API call to generate XML files that are download to a file drop location. This set up is done in the ESO CAD Monitor interface where the credentials that are provided by the vendor to the agency are entered that allows the ESO CAD Monitor to connect to that Web Service and generate that XML file.

Once the file has been generated and placed into a drop folder location, the ESO CAD Monitor then treats that file drop the same as the File Read Section above.

Interface Requirements: CAD Monitor

ESO's CAD Monitor must have access to the above sources of data (File or SQL Database View) from the server/computer and Window's profile on which it is installed. The CAD monitor will then communicate with the ESO Web Service via secure Http (Port 443). The communication is outbound only.

Prerequisites

- Microsoft Server 2008 R2 or greater required.
- Microsoft .NET 4.5.2 or newer required.

Installation

ESO CAD Monitor will be installed by ESO. Our technician will setup a temporary remote session to install the application and then configure and test. After this initial test is complete, the agency receiving the data will ensure that the data is coming across as expected and request any changes as needed.

Network and Security Requirements

Please ensure that your internal IT/Security department is provided with this document.

- Open Ports: 443 (SSL)
- Open DNS: <https://login.microsoftonline.com> (this site resolves to multiple IP addresses)
- Open DNS: <https://www.esosuite.net>
 - Open IPS: www.esosuite.net resolves to the below IP addresses. You will need to allow all of them.
 - 52.167.131.4
 - 13.68.24.54
 - 52.184.159.41
 - 52.179.184.97
 - 52.179.188.69
 - 52.225.230.212
 - 52.225.224.149
 - 52.225.229.188
 - 52.225.254.157
 - 52.225.248.252
 - 52.225.252.179
 - 40.84.37.184
 - 52.173.246.107
 - 52.176.155.54
 - 52.179.172.191
 - 52.225.250.184

TLS 1.2

The Transport Layer Security (TLS) 1.2 protocol for CAD data transmissions will need to be enabled to ensure that CAD transmissions are sent. This encryption protocol maintains the highest security standards and promotes the safety of customer data.

To enable TLS 1.2 please review the following: [How to enable TLS 1.2](#).

Interface Requirements: CAD Web Service Interface (API)

The ESO CAD API Interface is designed to be completely automated. The following instructions provide you with the tools necessary to begin development efforts. When sending data, please send all available data at the time the message is sent, not just the new data.

Addresses

Please configure the interface to deliver the content to the following URL:

<https://www.esosuite.net/CadServices/CadService.svc>

Interface Contract

As you will see from WSDL (please click on the above link for the WSDL URL), the service has a Process Incident method that takes an instance of a CadEntity type (which represents an entity from our XML-based interface definition document).

Return value is of custom type result and consists of an error code (0 = Success; 1 = Failure) and a string array of errors which will be populated in case of a failure.

Security Token

The “CadEntity.Guid” property is a security token that identifies the customer in ESO and will be issued by ESO Solutions prior to “go-live”. We will provide you with a CadEntity.Guid for testing purposes during your development.

Development Requirements

Please consider how you will handle failed objects (e.g. CadEntity objects that, for whatever reason, fail to be inserted into our system). One suggestion is to dump failed CadEntities into a local queue or list, whereby they are retried at regular intervals. We would also suggest coding a configurable capability (e.g. “drop old objects” = on/off) to drop failed objects that are deemed too old to be inserted, so that failed objects do not retry in perpetuity.